

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of managing packet voice networks using a virtual switch approach, the method comprising the computer-implemented steps of:  
creating and storing a virtual switch object, wherein the virtual switch object is an instantiation of a class and represents a virtual switch, in a packet-switched voice network, having a media gateway controller and one or more associated media gateways, wherein the virtual switch object comprises programmatic objects representing the media gateway controller, the one or more media gateways, and associations between the one or more media gateways and the media gateway controller;  
receiving user input that specifies a configuration operation on the virtual switch and one or more parameter values; and  
automatically issuing one or more configuration instructions to both the media gateway controller and the media gateway, resulting in configuring both the media gateway controller and the media gateway as specified in the user input.
2. (Original) A method as recited in Claim 1, wherein the virtual switch object is created as part of a network management application computer program, wherein the network management application is communicatively coupled to an operational support system and to one or more element management systems, and further comprising the steps of issuing one or more configuration requests to one or more of the element management systems as part of the step of automatically issuing configuration instructions.
3. (Original) A method as recited in Claim 1, wherein the virtual switch object is created as part of a network management application computer program that generates a graphical user interface that displays an icon representation of the virtual switch, and wherein the step of receiving user input comprises the step of receiving user input

dragging the icon representation and dropping the icon representation in a data entry field.

4. (Original) A method as recited in Claim 3, further comprising the step of displaying the icon representation in an object holding area of the graphical user interface when the media gateway associated with the object is not then currently associated with a media gateway controller.
5. (Original) A method as recited in Claim 3, wherein the graphical user interface comprises a tree view of the virtual switch and each media gateway or media gateway controller associated therewith, a topology map of a network topology that includes the virtual switch, and an object holding area that displays un-associated network elements.
6. (Currently Amended) A method as recited in Claim 1, wherein the configuration operation of the step of receiving user input is selected from among the set consisting of: associate/disassociate a media gateway from a virtual switch; add or remove or modify parameters of a primary rate interface (PRI) backhaul service; add or remove or modify a trunk, a trunk group, routes, or route lists; add or remove or modify a customer; or turn up or tear down or modify service for a customer.
7. (Cancelled)
8. (Original) A method as recited in Claim 1, wherein the virtual switch object comprises programmatic objects representing: a media gateway controller; a media gateway; associations between the media gateway and media gateway controller; one or more connection termination points of the media gateway controller and the media gateway; one or more virtual trunks; and one or more physical resources.

9. (Previously Presented) A method as recited in Claim 1,  
wherein the user input comprises user input selecting a virtual switch and user input  
selecting an “Add PRI Signaling Backhaul” function; and  
wherein the configuration instructions instruct the media gateway and media gateway  
controller, as specified, to --  
add a line with Time Division Multiplexed (TDM) endpoints and a Common  
Channel Signaling (CCS) channel on the selected media gateway;  
add a New trunk group at the media gateway controller and associate it with a  
customer;  
add one or more trunks at the media gateway controller;  
associate the trunks with a corresponding endpoint of the media gateway;  
verify that a signaling backhaul connection has been set up;  
set up a signaling backhaul connection if required;  
set up a cross-connect between the CCS channel and the signaling backhaul  
connection at the media gateway, if required, as determined by the type  
of media gateway.
10. (Currently Amended) A computer-readable medium carrying one or more sequences  
of instructions for managing packet voice networks using a virtual switch approach,  
which instructions, when executed by one or more processors, cause the one or more  
processors to carry out the steps of:  
creating and storing a virtual switch object, wherein the virtual switch object is an  
instantiation of a class and represents a virtual switch, in a packet-switched  
voice network, having a media gateway controller and one or more associated  
media gateways, wherein the virtual switch object comprises programmatic  
objects representing the media gateway controller, the one or more media  
gateways, and associations between the one or more media gateways and the  
media gateway controller;  
receiving user input that specifies a configuration operation on the virtual switch and  
one or more parameter values; and

automatically issuing one or more configuration instructions to both the media gateway controller and the media gateway, resulting in configuring both the media gateway controller and the media gateway as specified in the user input.

11. (Currently Amended) An apparatus for managing packet voice networks using a virtual switch approach, comprising:

means for creating and storing a virtual switch object, wherein the virtual switch

object is an instantiation of a class and represents a virtual switch, in a packet-switched voice network, having a media gateway controller and one or more associated media gateways, wherein the virtual switch object comprises programmatic objects representing the media gateway controller, the one or more media gateways, and associations between the one or more media gateways and the media gateway controller;

means for receiving user input that specifies a configuration operation on the virtual switch and one or more parameter values; and

means for automatically issuing one or more configuration instructions to both the media gateway controller and the media gateway, resulting in configuring both the media gateway controller and the media gateway as specified in the user input.

12. (Currently Amended) An apparatus for managing packet voice networks using a virtual switch approach, comprising:

a network interface that is coupled to the data network for receiving one or more packet flows therefrom;

a processor;

one or more stored sequences of instructions which, when executed by the processor, cause the processor to carry out the steps of:

creating and storing a virtual switch object, wherein the virtual switch object

is an instantiation of a class and represents a virtual switch, in a packet-switched voice network, having a media gateway controller and one or more associated media gateways, wherein the virtual switch

object comprises programmatic objects representing the media gateway controller, the one or more media gateways, and associations between the one or more media gateways and the media gateway controller;

receiving user input that specifies a configuration operation on the virtual switch and one or more parameter values; and  
automatically issuing one or more configuration instructions to both the media gateway controller and the media gateway, resulting in configuring both the media gateway controller and the media gateway as specified in the user input.

13. (Original) A method as recited in Claim 1, wherein the virtual switch object is created as part of a network management application computer program that is interfaced to an operational support system, and wherein the step of receiving user input comprises receiving user input from an interface to the operational support system that specifies a configuration operation on the virtual switch and one or more parameter values.
14. (New) An apparatus as recited in Claim 11, wherein the virtual switch object is created as part of a network management application computer program, wherein the network management application is communicatively coupled to an operational support system and to one or more element management systems, and further comprising means for issuing one or more configuration requests to one or more of the element management systems as part of the means for automatically issuing configuration instructions.
15. (New) An apparatus as recited in Claim 11, wherein the virtual switch object is created as part of a network management application computer program that generates a graphical user interface that displays an icon representation of the virtual switch, and wherein means for receiving user input comprises means for receiving user input dragging the icon representation and dropping the icon representation in a data entry field.

16. (New) An apparatus as recited in Claim 15, further comprising means for displaying the icon representation in an object holding area of the graphical user interface when the media gateway associated with the object is not then currently associated with a media gateway controller.
17. (New) An apparatus as recited in Claim 15, wherein the graphical user interface comprises a tree view of the virtual switch and each media gateway or media gateway controller associated therewith, a topology map of a network topology that includes the virtual switch, and an object holding area that displays un-associated network elements.
18. (New) An apparatus as recited in Claim 11, wherein the configuration operation is selected from among the set consisting of: associate/disassociate a media gateway from a virtual switch; add or remove or modify parameters of a primary rate interface (PRI) backhaul service; add or remove or modify a trunk, a trunk group, routes, or route lists; add or remove or modify a customer; or turn up or tear down or modify service for a customer.
19. (New) An apparatus as recited in Claim 11, wherein the virtual switch object comprises programmatic objects representing: a media gateway controller; a media gateway; associations between the media gateway and media gateway controller; one or more connection termination points of the media gateway controller and the media gateway; one or more virtual trunks; and one or more physical resources.
20. (New) An apparatus as recited in Claim 11,  
wherein the user input comprises user input selecting a virtual switch and user input selecting an “Add PRI Signaling Backhaul” function; and  
wherein the configuration instructions instruct the media gateway and media gateway controller, as specified, to --  
add a line with Time Division Multiplexed (TDM) endpoints and a Common Channel Signaling (CCS) channel on the selected media gateway;

add a New trunk group at the media gateway controller and associate it with a customer;

add one or more trunks at the media gateway controller;

associate the trunks with a corresponding endpoint of the media gateway;

verify that a signaling backhaul connection has been set up;

set up a signaling backhaul connection if required;

set up a cross-connect between the CCS channel and the signaling backhaul connection at the media gateway, if required, as determined by the type of media gateway.

21. (New) An apparatus as recited in Claim 11, wherein the virtual switch object is created as part of a network management application computer program that is interfaced to an operational support system, and wherein means for receiving user input comprises means for receiving user input from an interface to the operational support system that specifies a configuration operation on the virtual switch and one or more parameter values.
22. (New) An apparatus as recited in Claim 12, wherein the virtual switch object is created as part of a network management application computer program, wherein the network management application is communicatively coupled to an operational support system and to one or more element management systems, and wherein execution of the one or more sequences of instructions by one or more processors further causes the one or more processors to perform the steps of issuing one or more configuration requests to one or more of the element management systems as part of the step of automatically issuing configuration instructions.
23. (New) An apparatus as recited in Claim 12, wherein the virtual switch object is created as part of a network management application computer program that generates a graphical user interface that displays an icon representation of the virtual switch, and wherein the step of receiving user input comprises the step of receiving user input

dragging the icon representation and dropping the icon representation in a data entry field.

24. (New) An apparatus as recited in Claim 23, wherein execution of the one or more sequences of instructions by one or more processors further causes the one or more processors to perform the steps of displaying the icon representation in an object holding area of the graphical user interface when the media gateway associated with the object is not then currently associated with a media gateway controller.
25. (New) An apparatus as recited in Claim 23, wherein the graphical user interface comprises a tree view of the virtual switch and each media gateway or media gateway controller associated therewith, a topology map of a network topology that includes the virtual switch, and an object holding area that displays un-associated network elements.
26. (New) An apparatus as recited in Claim 12, wherein the configuration operation is selected from among the set consisting of: associate/disassociate a media gateway from a virtual switch; add or remove or modify parameters of a primary rate interface (PRI) backhaul service; add or remove or modify a trunk, a trunk group, routes, or route lists; add or remove or modify a customer; or turn up or tear down or modify service for a customer.
27. (New) An apparatus as recited in Claim 12, wherein the virtual switch object comprises programmatic objects representing: a media gateway controller; a media gateway; associations between the media gateway and media gateway controller; one or more connection termination points of the media gateway controller and the media gateway; one or more virtual trunks; and one or more physical resources.
28. (New) An apparatus as recited in Claim 12,  
wherein the user input comprises user input selecting a virtual switch and user input selecting an “Add PRI Signaling Backhaul” function; and



wherein the configuration instructions instruct the media gateway and media gateway controller, as specified, to --

add a line with Time Division Multiplexed (TDM) endpoints and a Common Channel Signaling (CCS) channel on the selected media gateway;

add a New trunk group at the media gateway controller and associate it with a customer;

add one or more trunks at the media gateway controller;

associate the trunks with a corresponding endpoint of the media gateway;

verify that a signaling backhaul connection has been set up;

set up a signaling backhaul connection if required;

set up a cross-connect between the CCS channel and the signaling backhaul connection at the media gateway, if required, as determined by the type of media gateway.

29. (New) An apparatus as recited in Claim 12, wherein the virtual switch object is created as part of a network management application computer program that is interfaced to an operational support system, and wherein the step of receiving user input comprises the step of receiving user input from an interface to the operational support system that specifies a configuration operation on the virtual switch and one or more parameter values.